

We claim:

1 1. A method for controlling data flow of terminals in a centrally controlled
2 communication system including a central station (ZE) for controlling the
3 communication system, said method comprising allocating transmission
4 resources to the terminals (T1, T2, ...) of the communication system by the
5 central station (ZE) according to the following steps:

6 a) a terminal (T1, T2, ...) requiring the transmission resources makes a
7 decision whether or not to use only reduced transmission resource capacity at
8 least in transmission therefrom, independently of available transmission
9 resources; and

10 b) the decision regarding the reduced transmission resource capacity is
11 transmitted from the terminal making the decision to the central station (ZE) so
12 that the central station (ZE) allocates any remaining unused transmission
13 resource capacity, as needed, to other terminals of the communication system.

1 2. The method as defined in claim 1, further comprising inserting information
2 entities in a transmission frame of a resource requirement message (RR) of said
3 terminal (T1, T2,...), and wherein said information entities signal a reduced
4 amount of transmission possibilities during at least one of an up-link phase and
5 a direct-mode phase.

1 3. The method as defined in claim 1, further comprising assigning respective
2 transmission resource capacities to said terminals (T1,T2,...) based on filling
3 states of corresponding transmission buffers of said terminals by means of the
4 central station (ZE).

1 4. The method as defined in claim 1, further comprising controlling reception flow
2 according to an automatic repeat request protocol.

1 5. The method as defined in claim 1, further comprising selecting a
2 predetermined amount of reduction of the available transmission resource
3 capacity independently of at least one of a data rate and a number of active links
4 and in relation to a duration of a transmission frame.

1 6. The method as defined in claim 5, wherein the selecting of the predetermined
2 amount of reduction takes place according to a medium access control channel
3 access protocol.

1 7. The method as defined in claim 5, wherein the selecting of the predetermined
2 amount of the reduction takes place according to a sum of a transmission time
3 during at least one of up-link phase and direct-mode phase.

1 8. The method as defined in claim 2, wherein the information entities that signal
2 the reduced amount of the transmission possibilities comprise a reduction bit

3 (R-bit) for setting the reduced transmission resource capacity for said terminal,
4 which signals the central station (ZE) in a set or unset state.

1 9. The method as defined in claim 8, further comprising controlling the setting of
2 the reduced transmission resource capacity in said terminal by means of at least
3 one sensor (1,2).

1 10. The method as defined in claim 8, further comprising controlling the setting
2 of the reduced transmission resource capacity in said terminal (T1,T2, ..) by
3 means of at least one of a temperature sensor (1') and a battery sensor (2).

1 11. The method as defined in claim 2, wherein the information entities that signal
2 the reduced amount of the transmission possibilities comprise a plurality of
3 reduction bits (R-bits) for setting the reduced transmission resource capacity for
4 said terminal (T1, T2,...), which signal the central station (ZE) in a set or unset
5 state, and further comprising providing a code for different reducing factors with
6 said plurality of said reduction bits (R-bits) according to a duration of the
7 transmission frame.

1 12. The method as defined in claim 1, wherein resource allocation and resource
2 requirements are based on individual DLC links or according to predetermined
3 properties of said individual DLC links.

1 13. The method as defined in claim 12, wherein said predetermined properties of
2 said individual DLC links include traffic classes, service quality classes and
3 specific performance parameters for an entire terminal.

1 14. The method as defined in claim 1, further comprising controlling transmission
2 flow and reception flow based on said decision to receive said reduced
3 transmission resource capacity.

1 15. The method as defined in claim 1, wherein said reduced transmission
2 resource capacity relates to an individual DLC link of said at least one terminal
3 or to said at least one terminal in its entirety.

1 16. The method as defined in claim 1, wherein said reduced transmission
2 resource capacity and a reduction factor for said reduced transmission resource
3 capacity are adjustable independently of said decision and transmission of said
4 decision to said central station.

1 17. The method as defined in claim 16, wherein said reduction factor and said
2 reduced transmission resource capacity are adjustable during operation.

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